

ABSTRACT

The present invention is directed to implants that include therapeutic molecules bonded to their surfaces. The therapeutic molecules interact with cells that are adjacent, near, or adhering to the implant. The covalently-bonded therapeutic molecules may be released from the implant surface by changes in pH or enzymes characteristic of cells adjacent to the implant. Preferably the covalently-bonded agents include an antibiotics that are released from the implant surface by bacteria and in this way ensures that the antibiotic is released at sites on the implant that would serve as centers for both bacterial colonization and biofilm formation.